

CALIFORNIA DEPARTMENT OF TRANSPORTATION DUTY STATEMENT

CLASSIFICATION TITLE Transportation Engineering Technician	DISTRICT/DIVISION/OFFICE DES/GS/Office of Geotechnical Support	
WORKING TITLE Transportation Engineering Technician	POSITION NUMBER 559-316-3175-XXX	EFFECTIVE

As a valued member of the Caltrans team, you make it possible for the Department to improve the mobility across California by being innovative and flexible; reporting to work as scheduled; working cooperatively with team members and others; and treating others fairly, honestly and with respect. Your efforts are important to each member of the team, as well as those we serve.

GENERAL STATEMENT: Under the direction of a Senior Transportation Engineer, the Transportation Engineering Technician (TET) will perform laboratory testing on soil and rock samples for project design input and construction specification compliance, using established test procedures. Supports all aspects of the testing process, including but not limited to, sample receipt, review of test requests and tracking forms, sample storage, sample preparation, sample testing, processing test results, tracking ongoing and completed testing, archiving test results, disposing of surplus samples, and salvaging sample tubes. The TET will also do other duties as required to maintain and improve the Geotechnical Laboratory and test equipment.

TYPICAL DUTIES:

Percentage	Job Description
Essential (E)/Marginal (M) ¹	

- | | |
|---------|---|
| 50% (E) | Performs routine laboratory testing on soil and rock samples including, but not limited to, Moisture Content, Unit Weight, Atterberg Limits, Gradation, Specific Gravity, Compaction, Expansion Index, Consolidation, Swell Potential, Permeability, Compressive and Shear Strength, and others. Initially, the majority of the work will consist of testing of index and compaction properties. All tests will be performed in accordance with California Test Methods (CTM), American Society for Testing and Materials (ASTM) or other approved methods. Test results will be calculated and reported on specified test forms and/or entered into a computer database. |
| 20% (E) | Performs laboratory testing associated activities that include, but not limited to, maintenance and calibration of laboratory equipment and testing software and assistance in conducting complex testing and modifying test equipment. |
| 20% (E) | Supports all aspects of the testing process including, but not limit to, sample receiving, checking test request and boring location records received, sample storage, sample preparation, and closing out completed project which includes archiving test results, disposing of surplus samples and savaging sample tubes. |

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- ESSENTIAL FUNCTIONS are the core duties of the position that cannot be reassigned
 - MARGINAL FUNCTIONS are minor tasks of the position that can be assigned to others

- 10% (E) Works as needed to keep laboratory and work areas clean and test equipment in good conditions.

SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS

This is not a supervisory position.

KNOWLEDGE, ABILITIES AND ANALYTICAL REQUIREMENTS

The work requires mathematical and electronic skills, orderly work habits, computer usage, mechanical aptitude and normal manual dexterity. Lifting and carrying materials samples is required. Must have a basic knowledge of soils and soil properties. The ability to do routine, repetitive testing, following set procedures, while maintaining a high degree of accuracy is required. Knowledge of personal computers using DOS, Windows and NT operating systems, and a working knowledge of basic software programs such as Word and Excel are required. The ability to independently apply sound judgment in test situations and to analyze factors capable of effecting test results is required. The ability to work with others, to deal tactfully with clients and to communicate effectively is also required.

An aptitude for mechanical, electronic, pneumatic and electrical systems is desired in order for the TET to be able to maintain testing equipment. A willingness to do mundane tasks such as cleaning equipment and lab spaces when needed is also desired. Proficiency with computers is required and some knowledge of programming is desirable.

The employee must be able to comprehend soil and rock test methods and analyze test results. Must be able to understand how these results may be used. Must be able to analyze test equipment and results to recognize when a problem exists in the testing, and to be able to correct it.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCE OF ERROR

The incumbent is expected to exercise good judgment in performing tests and caring for tools and equipment. Tests are to be carried out on a timely basis. The employee is responsible for seeing that testing is done according to established test methods and is reported accurately. The design of major structures may be based, in part, on laboratory test results and unsatisfactory work could result in deficiencies in this design. Loss of test samples, or test results, or the inability to complete testing in a timely manner, could result in project delays and the need for costly resampling of project sites. The employee shall be responsible for adhering to established safety practices.

PUBLIC AND INTERNAL CONTACTS

Visitors from within and outside of the Department are common in the Lab and the TET may be asked to lead tours, answer questions or make presentations on Lab testing. Frequent contact with customers concerning testing and results can be expected.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

The employee may be required to stand and/or sit for long periods of time to conduct testing and/or generate reports. The ability to lift and carry test sample is required.

WORK ENVIRONMENT

While at their base of operation, employees will work in a climate-controlled laboratory and/or office under artificial lighting. Employee may occasionally be exposed to dusts induced from sample preparation and noise generated from equipment operation.

I have read, understand, and can perform the duties listed above. If you believe you may require accommodation, please discuss this with the hiring supervisor.

Employee Name (please print)

Employee Signature Date

I have discussed the duties with and provided a copy of this duty statement to the employee named above.

Supervisor Name (please print)

Supervisor signature Date